

### **REMARKS**

Claims 10, 13-15, and 25, as herein amended, and claims 11, 12, 18-20, 23 and 27 as filed are pending in the application. Claims 1-9, 16, 17, 21, 22, 24, 26 and 28-36 are withdrawn as being directed to a non-elected invention.

The rejections asserted in the Office Action have been overcome by amendment or traversed by argument. No new matter is introduced by the amendments submitted herewith, which are fully supported by the specification as filed.

**1. The claims as amended are not anticipated by the cited prior art.**

Claims 10, 11, 16, 18, 19 and 23 stand rejected as being anticipated under 35 U.S.C. §102(b) over the teachings of the Homburg reference. The Homburg reference is cited as teaching that protein or phospholipid from apoptotic neutrophils could be detected in blood plasma or serum. Applicant has amended the pending claims to recite detection of extracellular RNA in blood plasma or serum, and respectfully contends that the Homburg reference does not disclose these embodiments of his invention.

Claims 10-14, 23, 25 and 27 stand rejected as being anticipated under 35 U.S.C. §102(b) over the teachings of the Jahr reference. The Jahr reference is cited as teaching that DNA fragments from apoptotic cells could be detected in blood plasma or serum from cancer patients. Applicant has amended the pending claims to recite detection of extracellular RNA in blood plasma or serum, and respectfully contends that the Jahr reference does not disclose these embodiments of his invention.

Applicant thus respectfully contends that the claims as amended are not anticipated by the cited art. Moreover, Applicant further contends that detection of protein, phospholipid or DNA fragments in blood plasma or serum would not have indicated to the skilled worker that RNA could be detected in apoptotic bodies in blood plasma or serum, since it was known in the art that RNA was particularly sensitive to nucleases that were also known to be present in blood plasma or serum. Applicant thus respectfully contend that the amendments set forth herein overcome the asserted grounds of rejection under 35 U.S.C. §102(b), and ask the Examiner to withdraw these grounds of rejection.

2. **The claims as amended are non-obvious over the cited prior art.**

Claims 15 and 20 stand rejected as being obvious under 35 U.S.C. §103 over the teachings of the Jahr reference combined with the teachings of Mok. The Jahr reference is cited as teaching that DNA fragments from apoptotic cells could be detected in blood plasma or serum from cancer patients. As discussed above, Applicant has amended the pending claims to recite detection of extracellular RNA in blood plasma or serum, and respectfully contends that the Jahr reference does not disclose these embodiments of his invention. Further, as discussed above, Applicant respectfully contends that the skilled worker would not have appreciated that RNA could be detected in blood plasma or serum based on detection of DNA fragments as set forth in Jahr, in view of the known sensitivity of RNA to serum nucleases.

The teachings of Mok do not cure the deficiencies of Jahr. Mok teaches detection of cellular RNA (isolated from ovarian cancer cells in culture) using microarray technology, and detection of marker proteins (prostatin) from blood plasma or serum using antibody binding technology (see Abstract). Neither of these teachings is directed to detecting RNA from blood plasma or serum or could be combined with the teachings of Jahr to achieve Applicant's claimed invention.

Applicant thus respectfully contends that the asserted rejection under 35 U.S.C. §103 has been overcome by amendment and traversed by argument, and requests that the Examiner withdraw this ground of rejection.

**CONCLUSIONS**

Applicant believes that all pending claims are in condition for allowance, and respectfully request that the pending claims be passed to issue.

If Examiner Natarajan believes it to be helpful, she is invited to contact the undersigned representative by telephone at (312) 913-0001.

Respectfully submitted,  
**McDonnell Boenhen Hulbert & Berghoff LLP**

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By: /Kevin E. Noonan/  
Kevin Noonan, Ph.D.  
Reg. No. 35,303